1: Radcliffe-Brown E-5 (1906-1908)1922
AZ2 Andamans AZ2

441 The true fish-spear is unknown in the Andamans though use is sometimes made of a harpoon similar to the turtle harpoon, but of smaller dimensions and with a finer line, for harpooning fish.

227 In the North Andaman a sort of fish-gig was formerly in use made of about twelve pieces of *Areca* wood of about 105 to 110 cm. long and 1 cm. or less broad and with tapered and sharp-pointed ends. These were fastened side by side by means of a strip of wood near one end, as shown in Fig. 26. This weapon was used for spearing small fish in pools on the reef.

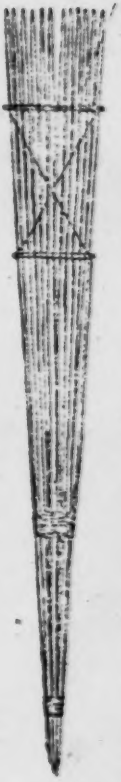

Fig. 26. North Andaman fish-gig

CUTTING IMPLEMENTS.

412 177 At the present time the Andamanese make use of iron for their cutting implements. It is uncertain when they first learnt the use of iron, but it was certainly before the end of the eighteenth century. What iron they had was obtained from wrecks, of which there have always been a number on the Andamans. The metal has only become plentiful since the European settlement of 1858.

412 325 It is highly probable that the Andamanese, though they may have learnt the use of iron from implements used by visitors to their shores, have not learnt from any other people the method of working the metal. Even at the present day they do not make any use of heat in the manufacture of their iron implements, the metal being worked cold. It seems highly probable that they have simply adopted in connection with iron the methods they formerly used in dealing with other materials, particularly shells.

The materials used by the Andamanese, apart from iron, are wood, bone, shell and stone. We may begin by considering their use of stone.

412 324 In former times quartz flakes were used by the Andamanese for the two purposes of shaving and scarifying the skin, and for hardly any other purpose. (Among minor uses of stone flakes may be mentioned those of cutting the finger-nails, and sharpening boars' tusks.) A quartz pebble is held in the left hand and is struck with a hard rounded pebble of any suitable kind. A flake is thus knocked off and falls into the palm of the left hand. The flake is examined, and if it be suitable it is

1: Radcliffe-Brown E-5 (1906-1908)1922
AZ2 Andamans AZ2

at once used. If it be unsuitable it is thrown away and another made. 412
For shaving, flakes with a sharp blade-like edge are required; for scarifying, flakes with a fine point are preferred. A flake is used till its fine 324
edge is lost and is then thrown away and another made. Thus a woman who is shaving some one's head may use as many as twenty flakes one after another, and to obtain twenty suitable flakes she probably makes as many as forty or even more. The kitchen-middens or heaps of refuse that are found on the sites of old encampments contain thousands of quartz pebbles that have been used as cores, and thousands of flakes.

Besides quartz there is a flinty kind of stone that is used in much the same way for making flakes. Suitable pieces of the stone are obtained and are placed in the fire for a few hours. They are taken out, and when they are cold are used in exactly the same way as a quartz pebble.

At the present time quartz is hardly ever used in this way, for the natives greatly prefer glass, and they obtain sufficient old bottles from Port Blair to satisfy their requirements. The bottom of a bottle is treated in every way as though it was a quartz pebble, a flake being knocked off and used, and then another and so on till the operation in hand (whether shaving or scarifying) is completed. The flake is held between the thumb and first finger when it is being used. In no case is a flake of quartz or glass ever kept. It is only made when required and after having been used is thrown away.

The natives themselves say that they formerly never made any use of stone for cutting purposes save in the case of stone flakes as described above. As against this there are three statements that must be considered. Colebrooke, who visited the islands in 1789, says of the Andamanese that "their canoes are hollowed out of the trunks of trees by means of fire and instruments of stone, having no iron in use amongst them, except such utensils as they have procured from the Europeans and sailors who have lately visited these islands; or from the wrecks of vessels formerly stranded on their coasts." The accuracy of Colebrooke's statement is made doubtful by the fact that at the present time (since 1858) the natives do not use fire in making their canoes, and it seems improbable that if they had this custom in 1789 they should have discontinued it and have entirely forgotten that it ever existed. Further if they used implements of stone in 1789 it is certainly strange that by 1858 they should have entirely forgotten that they ever did so. When Mr Man was making his enquiries

1: Radcliffe-Brown E-5 (1906-1908)1922
AZ2 Andamans AZ2

412 324 the oldest men all agreed in stating that they never used stone for their adzes. We may conclude that Colebrooke's statement is untrustworthy.

Stoliczka records the finding in the South Andaman of a stone celt and a stone arrow-head in the kitchen-middens of the South Andaman. The chief reason for doubting the value of this find is that Stoliczka states that these implements were made of tertiary sandstone, which it is very hard to believe would be of any use whatever. We may therefore adopt the opinion of M. Lapicque[1] that Stoliczka had found fragments of a whet-stone of sandstone and had been mislead into thinking that he had found an axe and an arrow-head.

A third statement that needs to be considered is one by Mr Portman, who presented to the British Museum an arrow with a head of stone made specially for him by a native of the North Andaman who stated that in former times such arrow-heads were used by the Andamanese. At the present time the arrow-head is broken and it would seem to be so fragile as to be entirely worthless for the purpose to which it was supposed to be put. The natives of the North Andaman whom I questioned stated that they did not use stone for their arrow-heads, but shell. We may therefore hold that the evidence given by Mr Portman is not at all satisfactory.

In the Akar-Bale tribe I heard a legend that at a certain spot there is a kind of stone which was used by the ancestors for making adzes. I visited the spot and the stone was pointed out to me. Unfortunately the specimen that I took was lost and I am therefore unable to state what the stone was, but it was such that it would have been utterly impossible to make any sort of adze out of it. It was of a crystalline nature and was easily fractured by a blow against even a soft substance such as wood. It was clear that the native statements about it were merely a legend having no historical value.

We may justifiably conclude that it is probable that the statement of the natives to the effect that before they possessed iron in any quantity they made their adzes and arrow-heads out of shell and not out of stone, is correct. Their use of stone for cutting was therefore confined to the flakes which have been described.

412 321 The most important material to the Andamanese seems to have been shell. Mollusc shells were used in the natural form or after having been manufactured. The chief shell used in its natural form is

[1] Lapicque, "Ethnographie des Iles Andaman," *Bulletin de la Société d'Anthropologie de Paris*, 1894, p. 370.

2:Man G-5 (1869-1880)1932 AZ2 Andamans AZ2

Metallurgy.—Having been, till comparatively recent times, ignorant almost of the existence as well as of the uses of iron, it is not to be wondered at that smelting and forging have been to them unknown arts. Now that they are better informed, and are able to procure pieces of hoop-iron, keel-plate, &c., they apply them to the manufacture of their blades and adzes, reducing them to the required thinness by continually striking the cold metal with a hard smooth stone (*tai·li-ban·a-*[1]) on a rude anvil (*râ·rap-*) of the same substance; such portions of the iron as are then found to exceed the dimensions requisite for the weapon or tool under construction are placed over the edge of the anvil and broken off by dint of repeated blows: the new edge thus formed, being more or less jagged, is then ground on a hone till the blade assumes the desired shape. Many of the aborigines who have been living for some time at Port Blair have, however, advanced a stage beyond this, for, by using such old chisels as they may succeed in procuring, they contrive to make their arrow-heads and other implements much more speedily than by the old method. The pointed weapons, *e.g.*, the *kowai·a-* and *tô·lbō·d-*, are made from pieces of stout wire, large nails, &c., by dint of laborious and patient hammering on the *râ·rap-*, and grinding on the *tâ·lag-*.

Stone Implements.—1. Although a great portion of the inhabitants of Great Andaman have for some time past been able through us to procure iron in sufficient quantities to substitute it for stone (not to mention bones and shells), still they can by no means be said to have passed out of the stone age; indeed, the more distant tribes still retain the use, with scarcely any modification, of most of the stone and other implements which served their ancestors. Even the inmates of the homes at Port Blair may still often be seen employing one or other of them, evidently therefore from choice: this more especially refers to the first three in the following list,[2] which comprises the small number of stone implements in ordinary use among the present aboriginal inhabitants of the islands:—

râ·rap-, the anvil.

tai·li-ban·a-, the hammer (probably a smooth round piece of dolerite or fine-grained basalt).

tâ·lag-, the whetstone (consisting of slightly micaceous sandstone).

tô·lma lô·ko tūg-[3] (lit., *quartz tooth*), chips or flakes for shaving, tattooing, &c.

[1] *Vide* next section, paragraph 1.

[2] There are no special makers, or procurers, of these stones.

[3] These are either fragments of opaque whitish vein quartz, or of transparent rock crystal, or are obtained from pebbles of opaque bluish-white quartz with

2:Man G-5 (1869-1880)1932 AZ2 Andamans AZ2

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lâ-, cooking stones; common pebbles, about a couple of inches in diameter, which are heated, and then placed on all sides of the food which it is intended to cook.

2. When a new *whetstone* is required—as no method of cutting stone is known to them—a block of soft sandstone is chosen, which, if too large, is placed on a fire till it breaks; the piece best adapted for the purpose is then taken and shaped according to fancy, by the aid of one of the hard smooth stone hammers; after being used a short time the edges wear down, and it answers as a hone for several months.[1]

3. Chips and flakes are never used more than once; in fact, several are generally employed in each operation: those having a sharp blade-like edge are reserved for shaving, while others with a fine point are kept for tattooing or scarifying; when done with they are thrown on a refuse heap, or otherwise disposed of, lest injury should befall anyone by inadvertently treading on them. [462] Flaking is regarded as one of the duties of women, and is usually performed by them.[2]

4. For making *chips* two pieces of white quartz are needed; the stones are not pressed against the thigh, nor are they bound round tightly so as to increase the line of least resistance to the blow of the flaker; but one of the pieces is first heated and afterwards allowed to cool, it is then held firmly and struck at right angles with the other stone: by this means is obtained in a few moments a number of fragments suitable for the purposes above mentioned. A certain knack is apparently necessary in order to produce the kind of chips which are at the time required: the smallest flakes are obtained in the same manner and never by pressure.

5. Glass chips are now generally used by all who are in communication with ourselves, in preference to those of flint, as they are sharper and more effective; the method in which they are obtained is the same, the thick lump of glass forming the bottom of beer and wine bottles being selected for the purpose, and never the thinner portions.

6. It has been stated[3] that formerly, for tattooing, a "sharpened flint bound to a stick" was used, and that the present instrument is a bit of broken bottle "inserted into the split extremity of a stick;" no instance has, however, been found confirmatory of the words quoted, and the Andamanese

fatty lustre, thin chips of which are translucent at the edges. (For this description I am indebted to Mr. F. W. Rudler.)

[1] For the mode of use *vide* Appendix B, item 52.

[2] All women can scarify and act as barbers, but only about 50 per cent. of them undertake the more difficult task of tattooing.

[3] *Vide* Dr. Day.

2: Man G-5 (1869-1880)1932 AZ2 Andamans AZ2

themselves declare that they never haft the stone chips or glass flakes, and that the former are never "sharpened," but produced in the manner already described.

7. Quartz is commonly met with throughout the country occupied by the tribes with which we are in friendly intercourse; no difficulty, therefore, is ever experienced in obtaining *it*, or, indeed, *any* of the other varieties of stone which they use. It is employed for no other purposes than those here indicated, as has been assumed,[1] and the art of producing fire by its means is unknown to them.[2]

8. The whetstone and hammer only are offered as mediums of exchange, but no great value is attached to either of these objects, nor is any superstition associated with their usage: they are therefore—when no longer serviceable—cast aside.

9. Stones are not used by them for cutting wood or bone, the latter being usually crushed by a hammer for the sake of the marrow. Before the introduction of iron, small holes were bored with bone or pieces of shell, but rarely, if ever, with stone, and no implement has been found which might be supposed to have served as a stone saw or scraper, for which purposes shells apparently have been generally employed.[3]

10. In his "Note on the Kjokken-Möddings of the Andaman Islands" the late Dr. Stoliczka also refers to a celt found in one of these refuse heaps as "a small but typical arrow-head," and describes it as of tertiary sandstone. The Andamanese, however, maintain that they never, even when iron was scarce, made arrow-heads, axes, adzes, or chisels of stone; they also affirm that the fragments which have been found in the kitchen-middens, and which have given rise to the impression of having formerly served one or other of the above purposes are merely quartz flakes or broken pieces of cooking stones or hones which, in former times as now, were thrown among the rubbish when no longer of use.[4]

11. Stones are not regarded as thunderbolts or worn as amulets: they are not placed in water previous to their being worked, and holes are never bored in them, nor is the surface ever ground or polished.

[1] "From the flint they manufactured knives . . . and arrow-heads" (de Roepstorff), and elsewhere he speaks of "flint hatchets," which not improbably were as much unknown in former times as at the present day. *Perna ephippium* (*ē'la-*) shells were formerly sharpened and converted into arrow-heads: hence *ē'la-* has ever since been adopted as the name of the bladed (or pig) arrow, even although iron has now been entirely or very generally substituted for shell. Adze blades were, it seems, sometimes made of *Pinna* shells.

[2] *Vide ante* "Fire," paragraphs 1 and 4.

[3] *Vide ante* "Natural Forms," paragraph 1.

[4] *Vide* my remarks on this subject in Journ. Anthrop. Inst., vol. xi, p. 271.

765 neck, usually, but not always, by the widow, widower or nearest relative. Mourning closes with a ceremonial dance and the removal of the clay. The ceremonies connected with the disposal of the dead are conventional, reverential and by no means without elaboration in detail.

V. Arts.

324 **Stone Implements.**—The only stone cutting implement known to the Andamanese is the quartz flake chipped off, never worked, and held between the fingers for shaving and tattooing, and shells and fish bones are used for the small blades of the peculiar adze of this people, and for arrow points, scraping and cutting. A *cyrena* valve is the ordinary knife and scraper. Hammers, anvils, hones, and oven-stones consist of natural stones. They have never made celts.

177 The ends of glass bottles for some years, and iron from wrecks for a long time past, have been substituted for the indigenous implements, when and where procurable. The object of the long series of murderous raids made by the inland Jarawas on the outlying parts of the Penal Settlement has now been proved to have been made in search for iron. The implements on the whole are coarsely and roughly made.

411 **Weapons.**—The weapons of the Andamanese are bow and arrow, harpoon, fish spear, pig spear, and they have never had any notion of poisoning the blades, which however sometimes inflict dangerous septic wounds from dirt, though as a rule they are kept bright as a matter of pride. Barbed arrows and harpoons with loose heads are used for catching and pulling up game in the jungles and marking where turtle or large fish are sinking.

Domestic Arts.—Excellent information with illustrations on the domestic and other arts of the Andamanese is to be found in a minutely accurate work, Man's *Aboriginal Inhabitants of the Andaman Islands.*

283 **String and Netting.**—String for nets and all purposes is twisted, often neatly, from the inner bark of creepers. Large nets of this string are made for driving turtle and hand-nets for prawns and small fish and for wallets. Stout cord is made from the inner bark of the *melochia velutina.* Whole, split and scraped canes are used as binders.

285 **Weaving.**—The weaving is good, neat and stout, and baskets and mats are thus well made from strips of canes.

323 **Pottery.**—The unglazed circular clay cooking pots with rounded or pointed bottoms, to the Andamanese very valuable, are built up by hand, sun-dried and then baked, but not thoroughly, in the fire. They are often encased in basket work for safety. Their manufacture, form and ornament are typical of the Stone Age generally.

322 **Wood and Cane work.**—Buckets are hollowed out of wood or cut from the joints of the bamboo. Canoes are hollowed out of whole trunks of light, soft timber by the adze without the use of fire, do not last long and are only fair sea boats. They are however capable of holding many people and a good deal of light cargo.

301 **Ornamentation, Personal and Domestic.**—The personal ornaments made are—bunches and strips of fibres and leaves scraped, cut and hammered, fringes of dentalium shells and straw-coloured wreaths of hammered and roasted dendrobium bark. The bones, skulls and jawbones of deceased relatives are also used whole, or broken and scraped to fancy or requirement, as ornaments, besides necklaces of the bones of animals. Tattooing and painting the body are only ornamental to the extent that, in the latter case especially, deviations from the conventional designs are due to personal taste.

353 The only ornaments to dwellings and huts are the heads of turtle, pigs, iguana, paradoxurus killed in hunting. These are hung up partly as ornaments and partly as trophies, but not with any idea of record.

531 Every manufactured article has its own customary conventional line ornament in one or more of three colours and in one or more of eleven patterns approximately achieved only. The colours are red, white and brown from natural earths. The patterns are (1) chevrons, (2) close cross hatch, (3) wide cross hatch, (4) parallel lines, (5) parallels and chevrons combined, (6) lozenges, (7) plait or guilloche, (8) herring-bone, (9) cross cuts, (10) loops, (11) vandyke with scolloped bands and cross lines.

11: Cipriani E-3 (1951-1955) 1966 AZ2 Andamans AZ2

Appendix

Below is given a brief summary of the evidence which in the author's opinion supports his view that the culture of the Andaman Islander dates back at least to the Palaeolithic era.

1 ABSENCE OF STONE IMPLEMENTS

There are in the Andamans abundant sources of stones suitable for shaping into tools. Despite this I found no traces whatever of any stone implements even in the lowest strata of the kitchen-middens, nor is there any evidence of their being used either in the more recent past or at the present time. Until the very recent introduction of iron the Onges always (as the kitchen-middens confirm) made tools solely of wood, with the addition of parts made from *Tridacna* shells, shaped by long and patient rubbing against stone. The only objects remotely approaching the definition of stone implements are the splinters of quartz or obsidian which are carried in the hair, and used as razors or, in the Arioto only, for primitive tattooing. These splinters, which are in no way shaped after being broken off, are thrown away as soon as they become blunt, and a new piece of quartz is crudely struck from a lump, by men or women indiscriminately. The existence of this one stone implement does not, in my view, justify the classification of the Onges (or the Andamanese in general) as a true Palaeolithic people; it would be more reasonable to class them as prelithic.

2 ABSENCE OF METAL WORKING

Even today the Onges' knowledge of metal working is confined to rubbing pieces of iron against stone to reduce them to the required shape. They have no knowledge of how to forge it, nor have they the tools to do so. Iron is clearly a very recent introduction, the importance of which the